Labels

The Source of Pesticide Information

Pesticide "HAZCOM"

Primary Source: The LABEL

Alternative Sources

△MSDS

□ Reference Texts

PEL, TLV, NIOSH Pocket Guide

Factors to Consider

Classification

Use Category

Nomenclature

Formulation

Label Information

Physical/Chemical Properties

Pesticide Classification

Type

Acaricide

Algaecide

Attractant

Avicide

Bactericide

Defoliant

Dessiccant

Target

Mites & Tics

Algae

Various

Birds

Bacteria

Leaf Structure

Plants

Pesticide Classification

Type

Disinfectant

Fungicide

IGR & PGR

Herbicide

Insecticide

Miticide

Molluscicide

Target

Bacteria

Fungus

Insects or Plants

Plants

Insects

Mites & Ticks

Snail & Slugs

Pesticide Classification

Type

Nematicide

Piscicide

Predacide

Repellant

Rodenticide

Silvicide

Target

Nematodes

Fish

Large Vertebrates

Various

Rodents

Woody Plants

Hazard Recognition Use Category



Over the counter available for untrained users.

Restricted Use

Only available for use by certified applicators.

Pesticide Nomenclature

Active Ingredient (A.I.)

The material that does the claimed activity

Inert Ingredients

Everything else.

Pesticide Nomenclature

Proprietary/Trade Name Roundup, Dursban, Poast

Common Name

ate chlorovrifos sethoxydin

glyphosate, chlorpyrifos, sethoxydim

IUPAC Name

2,4-bicyclo-cis-methyl-yabba-dabba-4,5trans-hideehoic acid

Formulations

Technical Grade
Usually what the formulator starts with,
the "pure stuff".

Formulation

The mixture (active & inerts) offered for sale/use.

Formulations

Most "finished" tank mixes are primarily

Formulations "INERTS"

Inert ingredients are mixed with the active ingredients. Inerts include carriers, solvents, diluents, surfactants, adjuvants*, emulsifying agents, odour masks, stabilizers etc.

They are **not** necessarily physically, biologically or chemically inert.

*California considers them pesticidal a.i.

Formulations Formulation Types

Aerosols: Liquid A.I. in a compatible solvent

Bait: A.I. mixed with an attractant

Dust: A.I. in/on a fine dry particulate.

Emulsifiable Concentrate: A.I. mixed with emulsifier in an organic solvent.

Formulations Formulation Types

Flowable: A.I. in a "batter" that can form aqueous suspensions.

Granular: A.I. in/on large dry particulate.

Microencapsulated: A.I. embedded in microcapsules, released by diffusion.

Formulations Formulation Types

Slow Release: A.I. embedded in matrix, released by diffusion/surface contact.

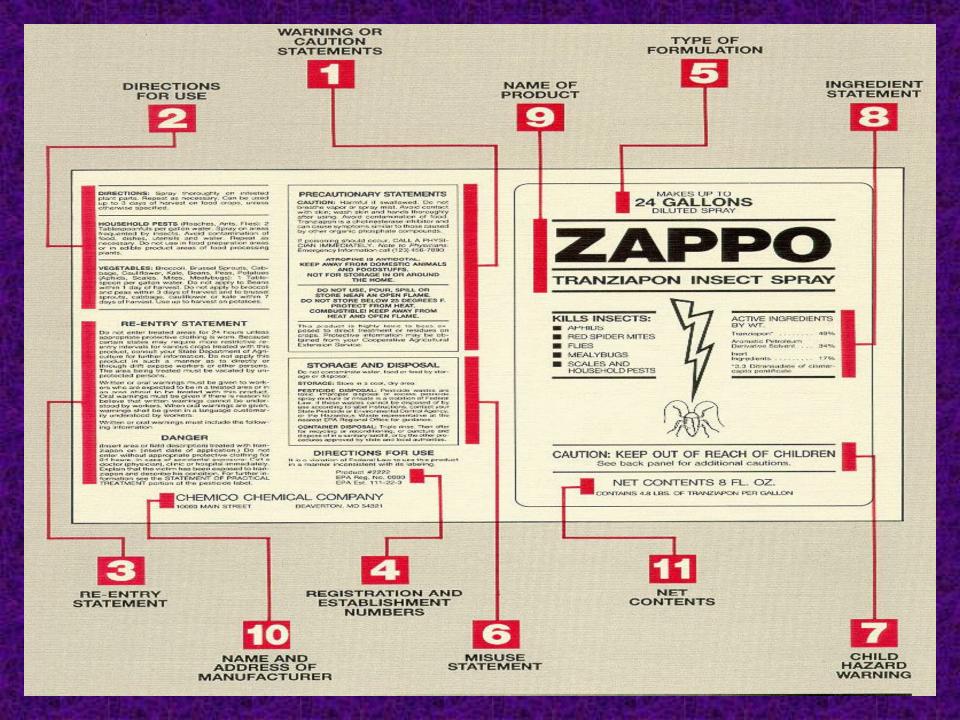
Soluble Powder: A.I. powder that is water soluble.

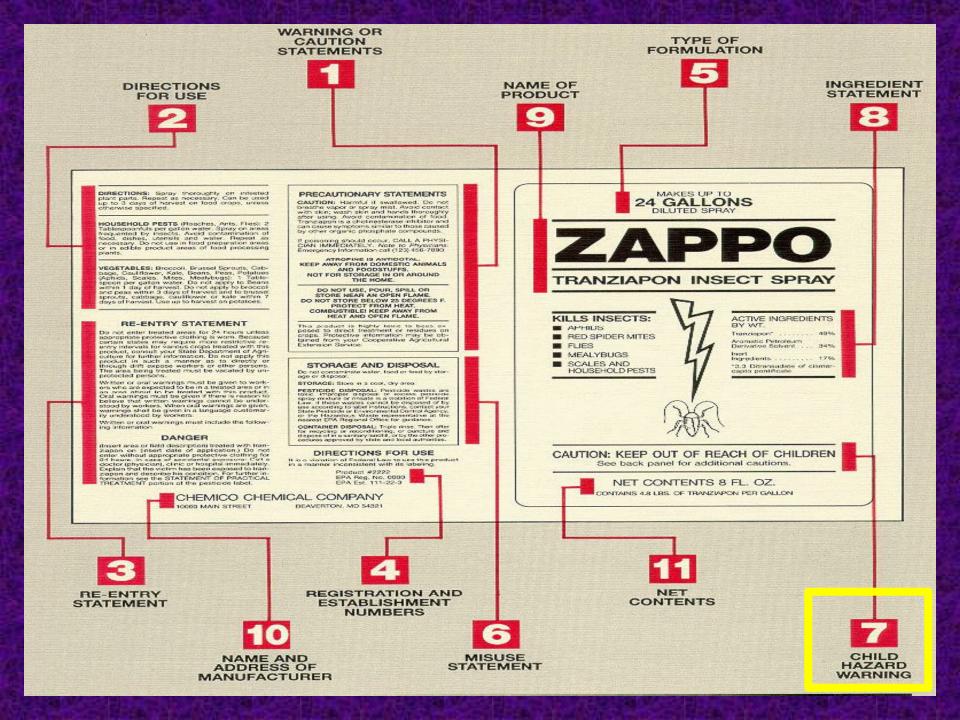
ULV: A.I. undiluted, 2 liter or less per acre.

Wettable Powder: A.I. finely ground, will stay in suspension with agitation.

Pesticide Labels

Labels provide essential safety and use information. All USEPA approved labels must provide a minimum set of specific information.





Category I: DANGER/POISON



Very toxic material POLD: Taste to a teaspoon Possibly corrosive to eyes or skin Usually Restricted Use

Category II: WARNING



Moderately toxic material POLD: Teaspoon to ounce Possibly severely irritating to eyes or skin

Category III: caution

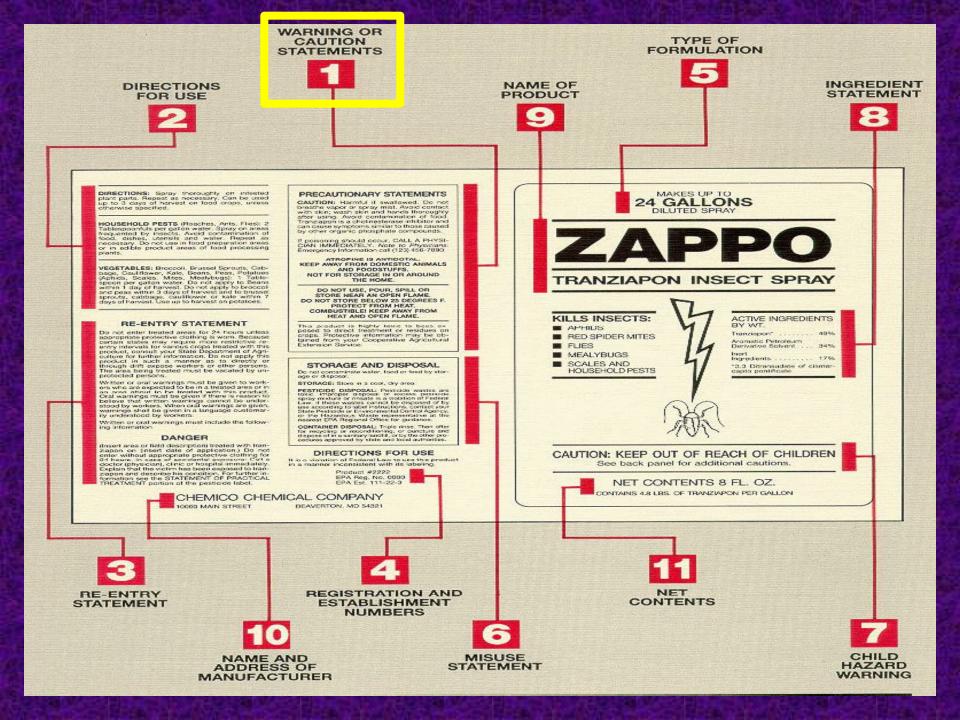


"Slightly" toxic material POLD: Greater than one ounce Somewhat irritating to eyes Slight irritation to skin

Category IV: caution OR none



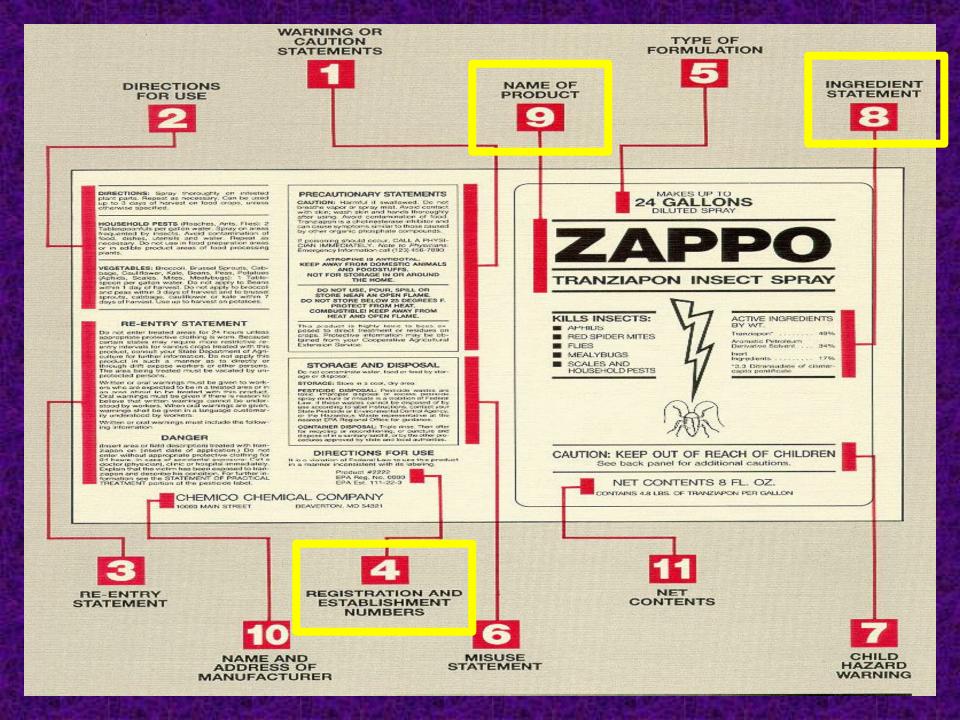
"Very low" toxicity material POLD: Not applicable Possibly irritating to eyes Possible irritation to skin



Label Information Precautionary Statement

Location of human hazard information and appropriate PPE to be worn when handling this material.

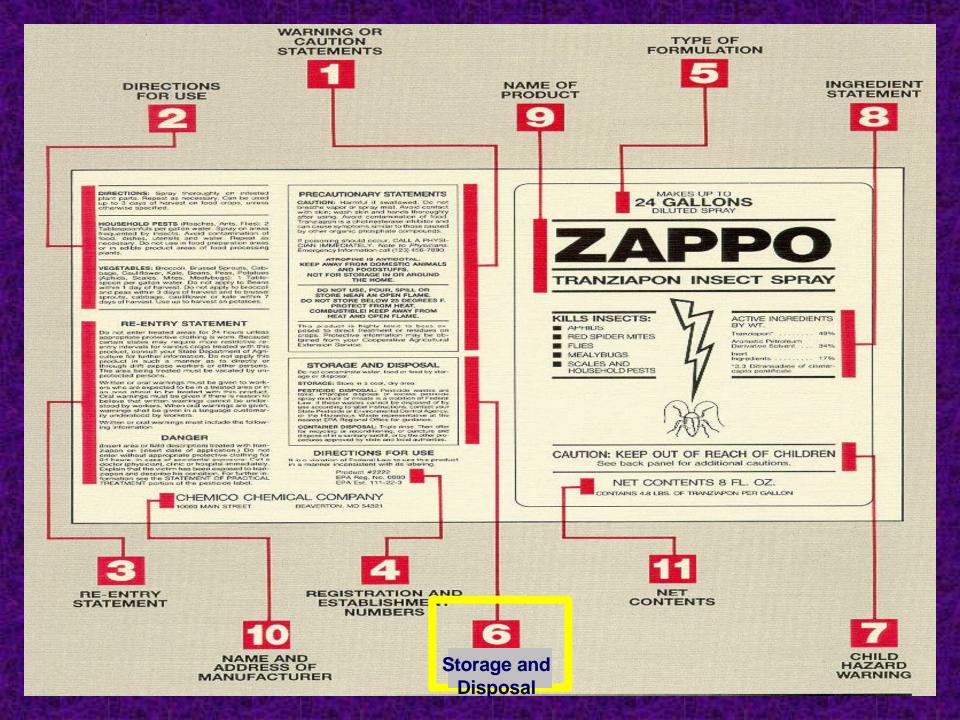
May also contain information on environmental hazards and specific physical and chemical hazards (fire, explosive, volatility, etc.)



Label Information Identifiers

Trade Name
Common Name
IUPAC Name

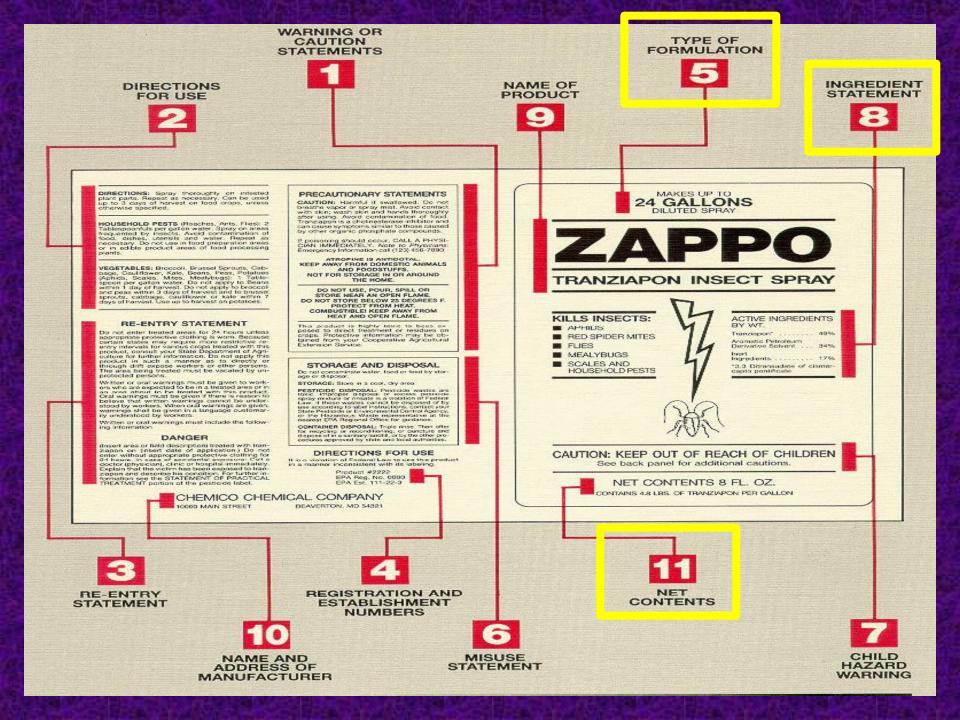
EPA Registration Number



Label Information Storage and Disposal

Information on proper storage (temperature extremes, not near food, feed or incompatibles) and disposal residue and used containers.

Spills in the field of application may be best left alone (prevent water/off-site contamination).

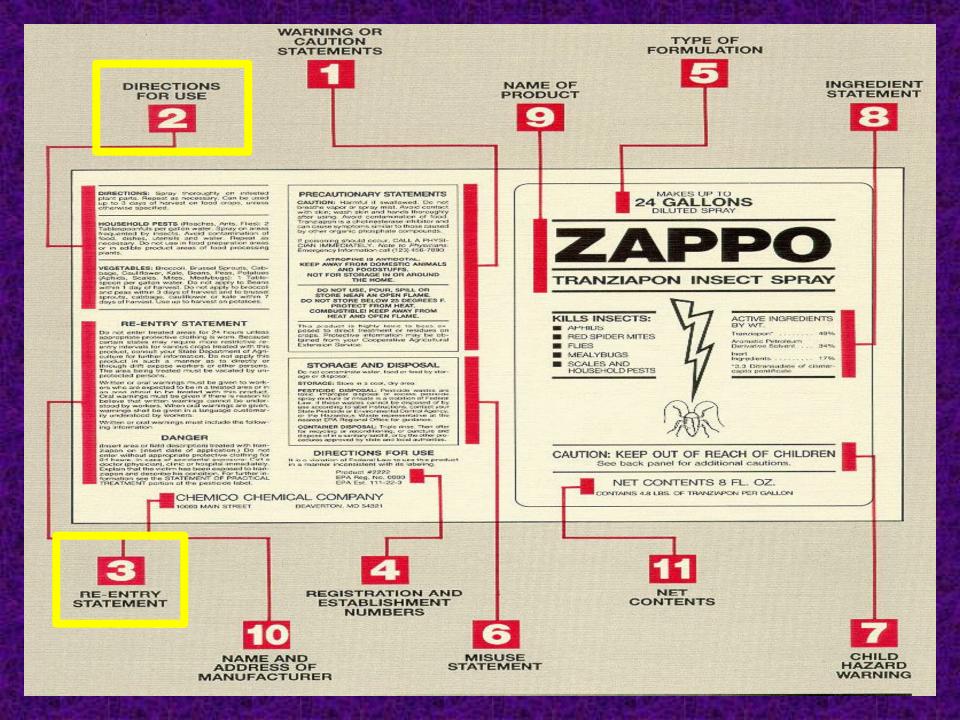


Label Information Contents/Formulation

How much does the container hold?

What are its physical characteristics?

What percentage A.I.? Inerts?



Label Information Directions/Re-Entry

Information for the mixer/loader, applicator, grower, farm workers and any other persons who may use or come in contact with the material and/or its residues.

Includes target pest, allowed crop uses, special restrictions, WPS information, reentry intervals, days to harvest, etc.

Pesticide Usage

About 70% of California pesticide use is non-agricultural, including:

- Business and institutional use
- Home and garden use

Half of the pesticides sold are chlorine-based products used for water treatment (pools, domestic water supplies, cooling/cleaning baths etc.)

Pesticide Usage

A glass of pesticide!





Beats a bucket of cholera.